

ever have been separated therefrom as a distinct order. It seems to us, however, that the authors have to a certain extent been in error in placing the *Dulichiidæ* among the aberrant Amphipoda, their true alliance being evidently to the typical section, with which they are described as agreeing in every respect, except in having the last two segments of the "pereion" fused into one, and the last segment of the "pleon" absent. In all other characters, such as especially the full development of the tail, the absence of rudimentary feet, and the separation of the coxæ from the segments on which they stand, the *Dulichiidæ* agree with the higher Amphipoda, and differ in the same proportion from the aberrant forms, whether we take the spectral *Caprellæ* or the louse-like *Cyami* as typical of the second group. This, however, is an objection easily got over; and we can only express a hope that the renewed publication of the book may now proceed regularly, and that it will find as many purchasers as its careful elaboration and the beauty of its printing and illustration certainly entitle its publisher to expect.

A Catalogue of Phytophaga (Coleoptera, Pseudotetramera). By the Rev. HAMLET CLARK. Part I. *With an Appendix, containing Descriptions of new Species*, by H. W. BATES and the Rev. HAMLET CLARK. 8vo. London: Williams and Norgate, 1866.

During the eighteen years that have elapsed since the completion of Lacordaire's classical Monograph of the Phytophaga, entomologists have been most industrious in describing new genera and species of this most attractive group of beetles. The result of this industry is the accumulation of a vast mass of more or less scattered descriptions of newly discovered forms, which renders it exceedingly difficult for an entomologist not making a special study of the group to arrive at anything like a clear notion of the number of species and genera already known. The Rev. Hamlet Clark (the author of the Catalogue now before us) and Mr. J. S. Baly may be noted as among the most active cultivators of this particular department of entomology, the latter especially exhibiting a power of production which has already rendered his publications very voluminous. It is a question, indeed, how far he may be regarded as doing good service to science by the publication of such an infinity of detached notices; but it is quite clear that, until he begins to devote his energies to some other group of insects, that monographic revision of the Phytophaga which has already become almost an absolute necessity, and which will undoubtedly bring about the suppression of a host of modern so-called genera, had better be postponed.

In the meanwhile entomologists will be thankful to the Rev. Hamlet Clark for the catalogue with which he proposes to furnish them, and of which the first part, including the four Crioceride groups, Sagridæ, Donacidæ, Crioceridæ, and Megalopidæ, is now before us. In this catalogue we find the generic and specific synonymy of the insects belonging to these groups concisely but clearly set forth, with full

bibliographic references and statements of habitat, and under each genus references to the published descriptions, if any are in existence, of the transformations of the species.

From the careful manner in which it has been prepared, this work cannot but be of the greatest service to future students of the Phytophaga, more especially if the author be enabled, as we trust he may, to finish the remaining (and far more difficult) portion of his task in the same style.

The Appendix consists of descriptions of new species (cited in their proper places in the catalogue) by the author and Mr. H. W. Bates, the latter describing those Amazonian species which were collected by himself. These descriptions are very numerous.

PROCEEDINGS OF LEARNED SOCIETIES.

ROYAL SOCIETY.

June 21, 1866.—Lieut.-General Sabine, President, in the Chair.

“Observations on the Ovum of Osseous Fishes.” By W. H. Ransom, M.D.

In this paper the author has communicated the details of observations of which the principal results were stated in a short paper published in the Proceedings of the Royal Society in 1854, and of further researches on the structure and properties of the egg in several species of osseous fishes. The methods employed in determining the functions of the micropyle, and in conducting the various inquiries entered upon, are described. The development of the ovarian ovum is traced in two species of *Gasterosteus*; and the yelk-sac is shown to increase by interstitial growth, and not by apposition of layers on either surface. A minute description of the germinal vesicle and its contents is given; and the germinal spots are shown to be drops of a thick fluid substance so apt to change their normally round form and to vacuolate in their interior, that no perfectly indifferent medium was found in which to examine them. The primitive yelk first formed around the germinal vesicle is shown to differ in some of its chemical and physical properties from that of the ripe ovum; it is solid, and does not consist of two distinguishable portions. On its surface a yelk-sac was found in very early ova, but in the smallest eggs examined it could not be separated.

The reactions of a variety of albumen allied to myosin, which the author has found in variable proportions in the yelk of all the fishes, amphibia, and birds which he has examined, are described, the yelk of the salmon being selected for experiment. This substance, to which the name albumen C is given provisionally, is remarkable, in addition to its being easily precipitable by water in excess, for forming under certain conditions a solution in dilute nitric acid not coagulable by boiling.

Some account is rendered of the reactions of an acid compound of